235.45

Preparing and Feeding Infant Formula

Overview

Introduction This policy provides guidelines for preparing and feeding infant formula.

In this policy This policy contains the following topics:

Guidelines for Preparing and Feeding Infant Formula

Introduction

These guidelines for preparing and feeding formula reflect recommended practices. Use these guidelines when:

- Evaluating potential feeding problems or
- Providing nutrition education to parents of formula-fed infants.

Sanitation

Follow these steps to ensure that the formula is prepared in a sanitary manner.

Step	Action
1	• Clean area in which the formula is to be diluted, and • Wash hands with warm soapy water.
2	Wash bottle, nipple and equipment in hot soapy water and rinse thoroughly.
3	If concentrate is used, wipe the top of the can with warm soapy water and shake the can well before opening

Formula proportions

Follow these guidelines to prepare standard infant formula to 20 calories/oz.

Formula Type	Preparation
Ready-to-use	No mixing is required.
Concentrate (liquid)	• Shake can well before opening. • Mix equal amounts of formula and clean water. Example: Mix 13 ounces of water with a 13-ounce can of concentrate.
Powder	• Mix 1 scoop of powder with 2 ounces of clean water. Example: To make an 8-ounce bottle, mix 4 scoops of powdered formula with 8 ounces of clean water.

Storage

Store the prepared formula in the refrigerator until use. Prepared infant formula should be discarded if it has been:

- Refrigerated more than 48 hours.
- Left in the bottle more than 1 hour since that feeding started.
- Kept at room temperature for more than 2 hours.

Caution: If refrigeration is not available, mix powdered formula at the time of the feeding and in the amount needed for that feeding.

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Guidelines for Preparing and Feeding Infant Formula, Continued

Frequency

Infants will eat as often as needed: newborn infants may need to eat every three hours. As infants grow their stomachs hold more, and they will eat less frequently.

Amount

This table shows the range of daily formula intake for infants 0-6 months old. Formula intake after 6 months is related to intake of solid foods.

Age (mo.)*	Range (oz.)
1	14-28
2	23-34
3	25-40
4	27-39
5	27-45
6	30-50

Source: Owen, A.L. Feeding guide. A nutritional guide for the maturing infant. Health Learning System, Bloomfield, N.J. 1979.

Avoid overfeeding

Do not overfeed the infant. Stop feeding when the infant:
- Closes his/her mouth,
- Stops sucking, or
- Wants to play instead of eat.

Feeding position

Hold the infant during feeding and elevate the infant's head slightly. This will:
- Ensure adequate feeding,
- Make the infant comfortable, and
- Lessen the chances of choking, earache, or nursing mouth decay.

Note: Lay the infant on his/her back or side after feeding, for naps and at bedtime.

Burping

Position the infant across the shoulder or lap and gently pat the infant's back.
- Burp newborn infants (birth to six weeks) after every ½-1 ounce of formula.
- Burp older infants after every 2 ounces of formula.

Concentrating the Caloric Density of Infant Formulas

Background

In some situations, health care providers recommend concentrating infant formulas by altering the mixing or dilution directions. The following directions for concentrating infant formulas have been provided by Susan Carlson, MMSc, MS, RD, the Perinatal Dietitian at the University of Iowa Hospital and Clinics.

Verify the prescription

Some infant formulas are manufactured as ready-to-feed products already concentrated at 24 calories/ounce or 27 calories/ounce. Because the renal solute load and the density of other nutrients varies between these products, it is critical to verify prescriptions for calorically dense infant formulas to determine if the health provider is prescribing:

- A standard formula prepared to increase caloric density, **or**
- A ready-to-feed high calorie formula.

Note: Some providers concentrate the caloric density of formulas by reducing the amount of water and adding a carbohydrate or fat module.

Concentrated dilution

To mix formula to a higher ratio of calories per ounce, use these proportions.

From Liquid Concentrate:

Caloric Density	Concentrate (oz.)	Water (oz.)
24 calories/ounce	3	2
	13	8
27 calories/ounce	3	1.5
	13	6.5

From Powder:

Caloric Density	Powder (scoops)	Water (oz.)
24 calories/ounce	3	5
27 calories/ounce	7	10
30 calories/ounce	4	5

Calculating amount to issue

When a formula is mixed at other than standard dilution, the amount of formula that can be issued is still the regulatory maximum for the type of formula (i.e., ready-to-feed, concentrate, or powder).